

WHAT IS CLAIMED IS:

1. A method of effecting an increase in the expression of Interferon- γ (IFN- γ) polypeptides and a decrease in the expression of Transforming Growth Factor- β (TGF- β) polypeptides in a population of syngeneic mammalian cells including CD8 positive T cells, CD4 positive T cells, Antigen Presenting Cells and tumor cells comprising exposing the population of cells to an amount of secondary lymphoid tissue chemokine (SLC) polypeptide sufficient to inhibit the growth of the tumor cells.
2. A method as in claim 1, wherein the increase in the expression of Interferon- γ (IFN- γ) polypeptides is at least about two-fold and a decrease in the expression of Transforming Growth Factor- β (TGF- β) polypeptides is at least about two-fold as measured by an enzyme linked immunoadsorbent (ELISA) assay.
3. A method as in claim 1, wherein the inhibition of the growth of the syngeneic tumor cells is measured by quantification of tumor surface area.
4. A method as in claim 1, wherein the syngeneic tumor cells are spontaneous cancer cells.
5. A method as in claim 1, wherein the SLC is further used to effect an increase in Granulocyte-Macrophage colony stimulating factor (GM-CSF) polypeptides, monokine induced by IFN- γ (MIG) polypeptides, Interleukin-12 (IL-12) polypeptides or IFN- γ inducible protein 10 polypeptides; or to effect a decrease in Prostaglandin E(2) polypeptides or vascular endothelial growth factor (VEGF) polypeptides.
6. A method as in claim 1, wherein the syngeneic cells are exposed to SLC polypeptide administered to a mammal by intratumoral injection.

7. A method as in claim 1, wherein the syngeneic cells are exposed to SLC polypeptide administered to a mammal by intra-lymph node injection.
- 5 8. A method as in claim 1, wherein the SLC polypeptide is produced by a syngeneic mammalian cell that has been transduced with an expression vector encoding the SLC polypeptide.
- 10 9. A method as in claim 1, wherein the method further includes exposing the population of cells to a small molecule or polypeptide agent and observing the agent's effect on the expression of IFN- γ polypeptides or the expression of TGF- β polypeptides.
- 15 10. A method of inhibiting the growth of spontaneous mammalian cancer cells in a population of syngeneic CD8 positive T cells, CD4 positive T cells and Antigen Presenting Cells comprising exposing the population of cells to an amount of secondary lymphoid tissue chemokine (SLC) polypeptide sufficient to inhibit the growth of the cancer cells.
- 20 11. A method as in claim 10, wherein the SLC is human SLC.
12. A method as in claim 11, wherein the SLC has the polypeptide sequence shown in SEQ ID NO: 1.
- 25 13. A method as in claim 10, wherein the population of cells is exposed to a SLC polypeptide administered to a mammal by intratumoral injection.
14. A method as in claim 10, wherein the population of cells is exposed to a SLC polypeptide administered to a mammal by intra-lymph node injection.
- 30 15. A method as in claim 10, wherein the population of cells is exposed to a SLC polypeptide expressed by a mammalian cell that has been transduced with an

expression vector encoding the SLC polypeptide, wherein the expression vector has been administered to the mammal.

5 16. A method of inhibiting the growth of cancer cells in a mammal comprising administering secondary lymphoid tissue chemokine (SLC) to the mammal; wherein the SLC is administered to the mammal by transducing the cells of the mammal with a vector having a polynucleotide encoding the SLC shown in SEQ ID NO: 1 so that the transduced cells express the SLC polypeptide in an amount sufficient to inhibit the growth of the cancer cells.

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17. A method as in claim 16, wherein the vector having a polynucleotide encoding the SLC shown in SEQ ID NO: 1 is administered to the mammal by intratumoral injection.

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18. A method as in claim 16, wherein the vector having a polynucleotide encoding the SLC shown in SEQ ID NO: 1 is administered to the mammal by intra-lymph node injection.

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19. A method as in claim 16, wherein the syngeneic tumor cells are spontaneous cancer cells.

20. A method of treating a syngeneic cancer in a mammalian subject comprising administering a therapeutically effective amount of an SLC to the subject.

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21. A method as in claim 20, wherein the SLC is human SLC.

22. A method as in claim 21, wherein the SLC has the polypeptide sequence shown in SEQ ID NO: 1.

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23. A method as in claim 20, wherein the SLC is administered to the subject by intratumoral injection.

24. A method as in claim 20, wherein the SLC is administered to the subject by intra-lymph node injection.
- 5 25. The method of claim 20, wherein the syngeneic cancer is a adenocarcinoma.
26. A method as in claim 20, wherein the SLC is expressed by a mammalian cell that has been transduced with an expression vector encoding a SLC polypeptide, wherein the expression vector has been administered to the mammalian subject.
- 10 27. The method of claim 26, wherein the expression vector is administered in a composition that facilitates the transduction of cells proximal to the site of administration.
- 15 28. The method of claim 27, wherein the composition comprises a liposome.
29. The method of claim 26, wherein the mammalian cell that expresses the SLC is a syngeneic cell.
- 20 30. The method of claim 20, wherein the expression vector is administered after being transduced into a syngeneic cell.
31. The method of claim 20, wherein the mammalian cell is an autologous dendritic cell transduced with a polynucleotide encoding the SLC polypeptide of SEQ ID NO: 1.
- 25 32. A method of attracting a T lymphocyte or a mature host dendritic cell to a site of a syngeneic tumor in a mammal comprising the steps of:
- (a) obtaining a dendritic cell from the mammal;
- (b) introducing an exogenous polynucleotide encoding secondary lymphoid
- 30 tissue chemokine as shown in SEQ ID NO: 1 into the dendritic cell so that the cell expresses the secondary lymphoid tissue chemokine; and

(c) placing the dendritic cell generated in step (b) at the site of the syngeneic tumor in the mammal;

wherein the secondary lymphoid tissue chemokine expressed by the dendritic cell generated in step (b) attracts the T lymphocyte or the mature host dendritic cell to the site of the syngeneic tumor in the mammal.

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